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EXAMINER

NICHOLSON, KERI JESSICA

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,677	Applicant(s) LJUNGBERG ET AL.	
	Examiner KERI J. NICHOLSON	Art Unit 3772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/14/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This is the initial Office Action based on non-provisional application 10/599,677 filed October 5, 2006, which is a 371 of PCT/SE05/00493 filed April 5, 2005, which claims priority from provisional application 60/573,230 filed May 21, 2004, and claims foreign priority from Sweden 0400890-0 filed April 5, 2004. The information disclosure statement was considered September 25, 2008. A Notice of Non-Compliance was mailed to Application on July 6, 2009 regarding the two sets of claims filed October 5, 2006, neither of which was filed as a preliminary amendment. Since no reply has been received by the Office to clarify which set of claims Applicant wishes to be examined, the set of claims that appear to be a preliminary amendment will not be entered as discussed in Notice of Non-Compliance and the original set of claims matching those filed in the PCT document will be examined at this time. Claims 1-10 are currently pending.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement filed May 14, 2007 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

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Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because of the use of the implied phrase "is provided herein". Correction is required. See MPEP § 608.01(b).

Claim Objections

5. Claims 6-10 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple depended claim. See MPEP § 608.01(n). For examination purposes, claims 6 and 8 have been interpreted to each depend from claim 1 only. Claims 7, 9, and 10 are also objected to for depending from an objected claim but would otherwise be proper in light of the examiner's interpretation of claims 6 and 8.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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8. Regarding claim 1, the phrase “such as” renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

9. Claim 1 recites the limitation “the exhaust direction of the breathable gas” in line 14; however, there is insufficient antecedent basis for this limitation in the claim. For examination purposes, “the exhaust direction” has been interpreted as “an exhaust direction”.

10. Dependent claims 2-10 are also rejected under 35 U.S.C. 112, second paragraph, because they are dependent on a rejected base claim.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1, 2, and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Schoeb (US Patent Pub. 2002/0000228).

13. Regarding claims 1 and 2, Schoeb discloses a ventilator (1) for supplying breathable gas to the airway of a patient with a respiratory disorder comprising a gas flow generator (3) having a gas flow generator chamber provided with a gas inlet opening (3d) and a gas outlet opening (3e); and a control valve for controlling the flow and/or pressure of the gas distributed to the patient having a valve body (3m) rotatably arranged about a rotational axis (3o) within a valve chamber; wherein the rotational axis of the valve body is substantially perpendicular to an exhaust direction of the breathable gas at the gas outlet opening of the gas flow generator; wherein the valve body *essentially* exhibits the shape of a sector of a circle in a plane

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perpendicular to the rotational axis in such a way that an arced first flow regulatory surface is formed along the circular arc of the sector and a second and third essentially straight flow regulatory surfaces are formed along two divergent sides of the sector and the valve body exhibits rounded transitional portions between the arced first flow regulatory surface and the second and third essentially straight regulatory surfaces; wherein the valve chamber exhibits two mutually opposing, essentially flat sidewalls both extending in a plan perpendicular to the rotational axis of the valve body; and wherein a first, second, and third valve body abutment surfaces extend between the sidewalls of the valve chamber and being arranged for abutting contact with the arced first flow regulatory surface of the valve body depending on the angular position of the valve body within the valve chamber, wherein the first valve body abutment surface is located on one side of the an inlet opening to the valve chamber being connected to the gas outlet opening of the gas flow generator chamber, the second valve body abutment surface is located between the inlet opening and a bypass opening arranged for directing a portion of the gas flow back into the gas flow chamber via a bypass conduit connected to the gas inlet into the gas flow chamber, and the third body abutment surface is located on an opposing side of the bypass opening with respect to the second valve body abutment surface (Figs. 5-6; page 1, ¶ 1 & 8; page 2, ¶ 26; page 3, ¶ 34-35).

14. Regarding claims 6 and 7, Schoeb discloses that the gas flow chamber and the valve control chamber are integrally formed in a combined gas flow generator and control valve housing (3a) and the valve chamber is located in immediate conjunction to the gas outlet opening of the gas flow chamber within the combined gas flow generator and valve housing such that the gas outlet opening of the gas flow generator chamber also defines an inlet opening to the valve chamber (Figs. 5-6).

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15. Regarding claim 8, Schoeb discloses that the rotational axis of the valve body is parallel to a rotational axis of a fan rotor wheel (3k) in the gas flow generator chamber (Figs. 5-6).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schoeb as applied to claim 1 above. Schoeb discloses the invention substantially as claimed, as described above, but fails to teach that an angle between the second and third flow regulatory surfaces of the valve body is between 90°-160° or between 110°-130°, or is 120°. At the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the valve body of the ventilator taught by Schoeb such that the angle between the second and third flow regulatory surfaces is between 90°-160° or between 110°-130°, or is 120° since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

18. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schoeb as applied to claims 6, 7, or 8 above, in view of Hilton (US Patent 4,430,995).

19. Regarding claim 9, Schoeb discloses the invention substantially as claimed, as described above, and further teaches an electric motor (2d+3c) attached to the combined gas

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flow generator and control valve housing (Fig. 1; page 2, ¶ 26). However, Schoeb fails to teach that the electric motor has a motor shaft coupled to the valve body in the valve chamber.

Hilton discloses a ventilator for supplying breathable gas to the airway of a patient comprising a gas flow generator (5) for generating a flow of the breathable gas to the patient and having a gas flow generator chamber provided with a gas inlet (6) and a gas outlet (9) opening and a control valve (11) for controlling at least one of the flow or pressure of the gas distributed to the patient and having a valve body movably arranged within said valve chamber and transition portions for providing at least one smooth pressure or flow transitions during transitions between closed and open positions of said control valve, wherein the gas flow generator chamber and the valve chamber are integrally formed in a combined gas flow generator and control valve housing, and wherein the valve chamber is located in immediate conjunction to the gas outlet opening of the gas flow generator chamber (Fig. 3). Hilton further discloses an electric stepper motor attached to the combined gas flow generator and control valve housing and having a shaft coupled to the valve body in said valve chamber, wherein the stepper motor is operated by the rotary potentiometer (22), which utilizes the varying voltage supplied to the motor to change the speed of the motor and thus the fan (column 3, lines 50-57). At the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the ventilator taught by Schoeb to include a motor shaft coupled to the valve body as taught by Hilton for the purpose of automating the valve to control the gas flow of ventilator.

20. Regarding claim 10, the combination of Schoeb and Hilton discloses the invention substantially as claimed, as described above, but fails to expressly teach that the valve body is provided with a through hole having a cross-sectional shape such that the valve body is rotationally fixed relative to the stepper motor shaft, whilst being freely slidably arranged in an

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axial direction of said stepper motor shaft for easy insertion or removal of the valve body in the valve chamber. However, at the time the invention was made, it was known to provide a means for enabling easy repair of a valve body and therefore it would have been obvious to one having ordinary skill in the art to modify the valve body of the ventilator taught by the combination of Schoeb and Hilton to have a through hole such that the valve body is rotationally fixed relative to the motor shaft and being freely slidable in an axial direction since Applicant has not asserted that the specific structural valve arrangement recited provides a particular advantage, solves a stated problem, or serves a purpose different from that of providing a means for easing the repair of the ventilator system and thus lacks criticality in its design.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KERI J. NICHOLSON whose telephone number is 571-270-3821. The examiner can normally be reached on Monday - Thursday, 8am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco, can be reached on 571-272-4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you

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would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KJN

/Keri J. Nicholson/

Examiner, Art Unit 3772

3/22/2010

/Patricia Bianco/

Supervisory Patent Examiner, Art Unit 3772